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PERFORMANCE TEST OF PLUG FLOW ANAEROBIC DIGESTER USING ANIMAL WASTE

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by

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DECLARATION

I, Nafhatun Jalilah Mohamed Azri, 2003479871 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

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ABSTRACT

The performance of plug flow anaerobic digester is studied in this research. Laboratory-scale digesters are operated to obtain the maximum biogas production as affected by 2 factors, (1) the type of animal waste (cow dung, goat dropping, and mixture of cow dung and goat dropping), and (2) the proportion of water and animal waste. 1:3, 1:6 and 1:10 proportion of waste to water were used in the experiment. In this research, 2 set of experiments are performed for each type of animal waste which are, (1) test for samples that were placed at the closet area (laboratory), (2) test for sample that were placed at the open space. From this research, it is expected to come out with the optimum waste concentration as a guideline digested configuration